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FRANK CHAU
F CHAU & ASSOCIATES
1900 HEMPSTEAD TURNPIKE
SUITE 501
EAST MEADOW, NY 11554

EXAMINER

HUTTON JR, WILLIAM D

ART UNIT PAPER NUMBER

2178

DATE MAILED: 09/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/283,561

Applicant(s)

CHALLENGER ET AL.

Examiner

Doug Hutton

Art Unit

2178

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,8-29,34-53,55-65 and 67-74 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

- 5) ☐ Claim(s) _____ is/are allowed.

- 6) ☒ Claim(s) 1-3,8-29,34-53,55-65 and 67-74 is/are rejected.

- 7) ☐ Claim(s) _____ is/are objected to.

- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 April 1999 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Applicant's Response

In Paper No. 9, Applicant amended the specification, amended Claims 1, 8, 9, 11, 27, 34, 35, 37, 53 and 61, cancelled Claims 6, 7, 32, 33, 54 and 66, and argued against all objections and rejections previously set forth in Paper No. 8.

All objections and rejections set forth in Paper No. 8 are withdrawn.

Specification

Applicant has incorporated *Introduction to Algorithms* into the application, on Page 14, Lines 10-13, for the purpose of explaining a "topological sorting algorithm." This sorting algorithm is "essential material," in that it is necessary to describe the claimed invention.

The incorporation of essential material in the specification by reference to a publication is improper. Applicant is required to amend the disclosure to include the material incorporated by reference. The amendment must be accompanied by an affidavit or declaration executed by the applicant, or a practitioner representing the applicant, stating that the amendatory material consists of the same material incorporated by reference in the referencing application. See *In re Hawkins*, 486 F.2d 569, 179 USPQ 157 (CCPA 1973); *In re Hawkins*, 486 F.2d 579, 179 USPQ 163 (CCPA 1973); and *In re Hawkins*, 486 F.2d 577, 179 USPQ 167 (CCPA 1973).

Claim Objections

Claims 1, 27 and 61 are objected to because of the following informalities:

- ✓ • Claim 1 includes the limitations “at least one of the objects including a *relationship with another object in the plurality of objects*” (Lines 3-4) and “*identifying at least one relationship between the plurality of objects*” (Line 5). It is unclear whether these limitations specify one “relationship” or two distinct “relationships.” In Examiner’s opinion, these two limitations specify the same thing – that is, a relationship between two objects in the plurality of objects. Applicant should amend the limitations to clearly indicate whether there is only one “relationship” or two “relationships”;
- ✗ • Claim 1 includes the limitation “sorting . . . to determine the order in which to construct *one or more objects*” (Lines 8-9). The claim has already specified a “plurality of objects” (Line 3). Thus, Applicant should amend the limitation to differentiate between the “plurality of objects” (Line 3) and the “one or more objects” (Line 9). In Examiner’s opinion, the “plurality of objects” are components that are used to construct a web page and the “one or more objects” are the web pages that are constructed from the “plurality of objects.” Applicant should amend the limitations to clarify this issue; and
- ✓ • Claim 1 includes the limitation “sorting the at least one graph in topological order to determine the order in which to construct one or more objects in accordance with the at least one relationship and *an update* to at least one of the objects in the plurality of objects” (Lines 8-10). It is unclear whether the “sorting” provides

the update or the sorting “determines” whether one of the objects has been updated. In the Examiner’s opinion, the limitation is fully inaccurate, because Applicant’s invention firstly updates one of the objects in the plurality of objects and then secondly sorts the graph. Applicant should amend the limitation to accurately describe the invention.

Claim 64 is objected to because of the following informalities:

- ✓ • the claim recites the limitation “wherein the step of *traversing*” in Line 1. There is insufficient antecedent basis for this limitation in the claim because “traversing” is not previously mentioned in the claim.

✓ Claims 64 and 65 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim, or amend the claim to place the claim in proper dependent form.

✓ Claim 64 recites that “the step of *traversing at least one graph* to determine the order includes the step of ***traversing by employing at least one topological sort on the at least one graph***” (Lines 1-3). There is no difference between the step of “traversing” and the step of “sorting.” These steps are one and the same.

✓ Claim 65 recites that “the *order is constructed from the at least one topological sort*” (Lines 1-2). This limitation is already specified in Claim 61, in that the fourth step “sorting the at least one graph in topological order to determine the order” (Line 8).

✓ Claim 21 is objected to because of the following informalities:

- the claim recites the limitation "the *connections include an edge* between two nodes representing two compound objects if the two compound objects are constructed from at least one common changed fragment" in Lines 1-3. Firstly, an "edge" is a "connection" between nodes of a graph. Thus, the limitation is repetitive and should be amended to remove the repetitive language. Secondly, Examiner is unsure what is being claimed. Is Applicant claiming that any two compound documents that are constructed from a common changed fragment have a hyperlink between the two compound documents. If so, then Applicant should acknowledge that. If not, then Applicant should explain what this limitation means.

✓ Claims 25 and 51 are objected to because of the following informalities:

- the term "of" should be inserted between the terms "set" and "objects" in Line 2 so that the claim reads more easily.

X Claim 53 is objected to because of the following informalities:

- the claim recites "objects" in Line 3, Line 4 and Line 8. Applicant should amend the claim to differentiate between these objects, if they are in fact different objects. In Examiner's opinion, the "objects" in Lines 3 and 4 are the same objects, said objects being components that are used to construct a web page, and the "objects" in Line 8 are the web pages that are constructed from the

"objects" of Lines 3 and 4. Applicant should amend the limitations to clarify this issue.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 63 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 63: 3

X The claim includes the limitation "wherein the step of sorting the at least one graph in topological order includes the step of *selecting sort criteria based on one of performance and correct construction of the plurality of objects*" (Lines 1-3). The written description of the invention does not mention anything about "selecting sort criteria." Thus, the written description also mentions nothing about sort criteria being based on "performance" or "correct construction" of the objects.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 23, 49, 63 and 64 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 63:

The claim recites the limitation "wherein the step of sorting the at least one graph in topological order includes the step of selecting sort criteria/order *based on . . . performance . . . of the plurality of objects*" (Lines 1-3). This limitation is indefinite because it is unclear how "sort criteria/order" can be "based on performance of the plurality of objects." Examiner does not understand what is meant by "performance of the plurality of objects." How do the objects "perform?" Which "performance" of the objects is the basis for the sort criteria/order?

Applicant must amend the claim to clarify.

Claim 64:

The claim recites the limitation "wherein the step of *traversing at least one graph to determine the order includes the step of traversing by employing at least one topological sort on the at least one graph*" (Lines 1-3). This limitation is indefinite because it is unclear how "traversing the graph" differs from "sorting the graph," as specified in Claim 1 (Line 8).

Applicant must amend the claim to clarify. For purposes of examination, Examiner will assume that there is no difference between "traversing the graph" and "sorting the graph."

Claims 23 and 49:

The claims recite the limitation "*constructing a union between a set including a second object and a set including changed fragments needed to construct the second object for at least one edge which begins with the second object and terminates in the first object and for which the second object has changed*" (Lines 7-9). This limitation is indefinite because it is confusingly worded and makes no sense to the examiner.

Applicant must amend the claim to clarify. For purposes of examination, Examiner will assume that Ferrel et al., U.S. Patent No. 6,199,082, in view of Cormen et al., "Introduction to Algorithms" ©1990, pp. 477-493, discloses/teaches every element specified.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 16-22 and 42-48 are rejected under 35 U.S.C. 102(e) as being anticipated by Ferrel et al., U.S. Patent No. 6,199,082.

Claims 16 and 42:

Ferrel et al. discloses a method for publishing a plurality of objects (Column 1, Lines 8-11), comprising the steps of:

- providing a plurality of objects (the web pages are the “plurality of objects”), including compound objects (the web pages are “compound objects” in that multiple components comprise the web pages);
- partitioning at least some of the plurality of objects into a plurality of groups (Column 29, Lines 16-18 – the web pages are “partitioned into groups” in that they are organized into sections) such that if two compound objects are constructed from at least one common changed fragment, then the compound objects are placed in a same group (Column 28, Line 49-55 – the objects making up the web pages are edited and the pages containing common updated “fragments” are “placed in a same group”); and
- publishing all objects belonging to a same group together (Column 29, Line 62 through Column 30, Line 29 – the web pages comprising the section are “pressed at once,” as specified in the cited text).

Claim 42 is merely the program storage device containing the method described in Claim 16. Accordingly, Claim 42 is rejected using the same rationale.

Claims 17 and 43:

Ferrel et al. discloses a method for publishing a plurality of objects, wherein the step of publishing includes the step of:

- for at least two of the plurality of groups, publishing all objects belonging to a first group before publishing any objects belonging to a second group (Column 28, Line 59 through Column 29, Line 40 – the title is comprised of a plurality of sections, “objects belonging to a first group” and “objects belonging to a second group,” and the “first group” is published before the “second group” in that a sequence ordering is maintained to determine how the title is displayed).

Claims 18 and 44:

Ferrel et al. discloses a method for publishing a plurality of objects, including the step of:

- delaying publication of a first object until a second object which is referenced by the first object is published (Column 39, Line 55 through Column 40, Line 5 – the dynamic story control and the link manager interact to create a web page, the “second object,” and make it available before the referencing web page, the “first object” that contains the hyperlink to the “second object,” is published).

Claims 19 and 45:

Ferrel et al. discloses a method for publishing a plurality of objects, wherein the first and second objects are Web pages and a reference between the first and second

objects is a hypertext link (Column 39, Line 55 through Column 40, Line 5 – the dynamic story control and the link manager interact to create a web page, the “second object,” and make it available before the referencing web page, the “first object” that contains the hyperlink to the “second object,” is published).

Claims 20 and 46:

Ferrel et al. discloses a method for publishing a plurality of objects, further comprising the steps of:

- representing objects by nodes on at least one graph (Column 9, Lines 30-39 – related objects are stored on an acyclic graph. An acyclic graph ***inherently*** represents objects by nodes. This limitation simply describes an “acyclic graph.”); and
- representing relationships between the objects by connections between the nodes (An acyclic graph ***inherently*** represents objects in a plurality of objects by nodes and represents relationships by connections between nodes. This limitation simply describes an “acyclic graph.”).

Claims 21 and 47:

Ferrel et al. discloses a method for publishing a plurality of objects, wherein the connections include an edge between two nodes representing two compound objects (An acyclic graph ***inherently*** has connections that include an edge between nodes. This portion of the limitation simply describes an “acyclic graph.”) if the two compound

objects are constructed from at least one common changed fragment (Column 28, Line 49-55 – the objects making up the web pages are edited and the pages containing common updated “fragments” are published together).

Claims 22 and 48:

Ferrel et al. discloses a method for publishing a plurality of objects, wherein the connections include a directed edge from a first node representing a first object to a second node representing a second object, if the second object includes a reference to the first object (Ferrel et al. expressly discloses an acyclic graph, as indicated in the above discussion. An acyclic graph *inherently* includes an edge from a first object to a second object if the second object has a reference to the first object. This limitation simply describes an “acyclic graph.”).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1-3, 8-15, 23-29, 34-41, 49-53, 55-65 and 67-74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ferrel et al., U.S. Patent No. 6,199,082, in view of Cormen et al., “Introduction to Algorithms” ©1990, pp. 477-493.

Claims 1, 27 and 61:

Ferrel et al. discloses a method for publishing objects (Column 1, Lines 8-11), comprising the steps of:

- providing a plurality of objects (Column 4, Line 66 through Column 5, Line 2 – the “components” of the publication are the objects), at least one of the objects including a relationship with another object in the plurality of objects (Column 9, Lines 30-39 – the objects are “related,” as indicated in the cited text);
- identifying at least one relationship between the plurality of objects (Column 9, Lines 30-31 – the “relationship” is “identified” and stored in a data structure);
- representing the at least one relationship between the plurality of objects using at least one graph (Column 9, Lines 30-31 – the “relationship” is represented on an acyclic graph);
- sorting the plurality of objects (Column 29, Lines 50-51) to determine the order in which to construct one or more objects (Column 53, Lines 36-50 – the plurality of objects are “sorted” “to determine the order in which to construct one or more objects” in that that a sorting algorithms can be applied at the parse tree creation step to order the content that is placed on the tree) and an update to at least one of the objects in the plurality of objects (Column 10, Lines 29-63 – the objects are “updated,” as specified in the cited text);
- constructing the one or more objects based on the determined order (Column 13, Lines 50-55 – the objects are constructed in that they are put together and published to the client); and

- publishing the one or more constructed objects (Column 13, Lines 50-55 – the constructed objects are published to the client).

Ferrel et al. fails to expressly disclose a method for publishing objects, comprising the step of:

- sorting the at least one graph in topological order to determine the order in which to construct one or more objects in accordance with the at least one relationship.

Cormen et al. teaches a method of performing a topological sort of an acyclic graph, comprising the step of:

- sorting at least one graph in topological order to determine an order in which to place one or more objects in accordance with at least one relationship (Page 485, fifth and sixth full paragraphs),

for the purpose of indicating precedence among the objects (Page 485, fifth and sixth full paragraphs).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method for publishing objects, disclosed in Ferrel et al., to include the step of sorting the at least one graph in topological order to determine the order in which to construct one or more objects in accordance with the at least one relationship for the purpose of indicating precedence among the objects, as taught by Cormen et al.

Claim 27 is merely the program storage device containing the method described in Claim 1. Accordingly, Claim 27 is rejected using the same rationale.

Claim 61 is a duplicate of Claim 1, and both claims cover the same scope despite a slight difference in wording. The only difference between Claim 1 and Claim 61 is that the term "sorting" (Claim 1, Line 8) is replaced with "traversing" (Claim 61, Line 8).

Accordingly, Claim 61 is rejected using the same rationale as that used to reject Claim 1

Claims 2, 28 and 62:

Ferrel et al. discloses a method for publishing objects, wherein the step of representing the at least one relationship between the plurality of objects includes the step of representing objects in the plurality of objects by nodes and representing the at least one relationship by at least one connection between nodes (Ferrel et al. expressly discloses an acyclic graph, as indicated in the above discussion. An acyclic graph ***inherently*** represents objects in a plurality of objects by nodes and represents at least one relationship by at least one connection between nodes. This limitation simply describes an "acyclic graph.").

Claims 29 and 63:

Ferrel et al. fails to expressly disclose a method for publishing objects, wherein the step of sorting the at least one graph in topological order includes the step of selecting sort criteria based on one of performance and correct construction of the plurality of objects.

Cormen et al. teaches a method for publishing objects, wherein the step of sorting the at least one graph in topological order includes the step of selecting sort criteria/order based on one of performance and correct construction of the plurality of objects, for the purpose of indicating precedence among the objects (Page 485, fifth and sixth full paragraphs).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method for publishing objects, disclosed in Ferrel et al., so that the step of sorting the at least one graph in topological order includes the step of selecting sort criteria based on one of performance and correct construction of the plurality of objects, for the purpose of indicating precedence among the objects, as taught by Cormen et al.

Claims 64 and 65:

As indicated in the above discussion, this claim does not further limit Claim 61. Thus, the combination of Ferrel et al. and Cormen et al. discloses/teaches every element of these claims using the same rationale as that provided in the rejection for Claim 61.

Claims 8, 34 and 67:

Ferrel et al. discloses a method for publishing objects, wherein all of the at least one of the plurality of objects are published together.

Claims 9, 35 and 68:

Ferrel et al. discloses a method for publishing objects, wherein the step of publishing includes the steps of:

- partitioning the plurality of objects into a plurality of groups (in Ferrel, the objects are “partitioned into groups” in that the “groups” comprise separate web pages); and
- publishing all objects belonging to a same group together (in Ferrel, the objects “belonging to a same group” are published together in that the web pages, comprised of the “partitioned group of objects,” are published).

Claims 10, 36 and 69:

Ferrel et al. discloses a method for publishing objects, wherein the step of publishing all objects belonging to a same group together includes the step of:

- for at least two of the plurality of groups, publishing all objects belonging to a first group before publishing any objects belonging to a second group (in Ferrel, the “objects belonging to a first group” are published before any “objects belonging to a second group” are published, in that one web page is published before another web page).

Claims 11, 37 and 70:

Ferrel et al. discloses a method for publishing objects, wherein the step of publishing includes the step of satisfying at least one consistency constraint (Column 39, Lines 16-53 – the “dynamic story control” includes a “consistency constraint” in that, when the title is pressed, every page in the title is dynamically constructed at the same time; thus, all updated pages are published in one atomic action).

Claims 12, 38 and 71:

Ferrel et al. discloses a method for publishing objects, wherein the step of satisfying at least one consistency constraint includes the step of delaying publication of a first object until a second object which is referenced by the first object is published (Column 39, Line 55 through Column 40, Line 5 – the dynamic story control and the link manager interact to create a web page, the “second object,” and make it available before the referencing web page, the “first object” that contains the hyperlink to the “second object,” is published).

Claims 13, 39 and 72:

Ferrel et al. discloses a method for publishing objects, wherein the first object and the second object include Web pages and a reference between the first and second objects includes a hypertext document/link (Column 39, Line 55 through Column 40, Line 5 – the dynamic story control and the link manager interact to create a web page,

the “second object,” and make it available before the referencing web page, the “first object” that contains the hyperlink to the “second object,” is published).

Claims 14, 40 and 73:

Ferrel et al. discloses a method for publishing objects, wherein the step of satisfying at least one consistency constraint includes the step of publishing two compound objects together if the compound objects are both constructed from at least one common changed fragment (Column 28, Line 49-55 – the objects making up the web pages are edited and the pages containing common updated “fragments” are published together).

Claims 15, 41 and 74:

Ferrel et al. discloses a method for publishing objects, wherein at least one of the plurality of objects is a Web page.

Claims 23 and 49:

As indicated in the above discussion, Ferrel et al. discloses every element of Claim 20.

Ferrel et al. also discloses a method for publishing a plurality of objects, further comprising the steps of determining if a first compound object and a second compound object embed at least one common changed fragment by:

- sorting at least part of a graph including dependence edges between objects (Column 29, Lines 50-51);
- examining the graph in an order defined by the sort (Column 53, Lines 36-50 – the objects/graph are sorted/examined “in an order defined by the sort” in that that a sorting algorithms can be applied at the parse tree creation step to order the content that is placed on the tree); and
- constructing a union between a set including a second object and a set including changed fragments needed to construct the second object for at least one edge which begins with the second object and terminates in the first object and for which the second object has changed.

Ferrel et al. fails to expressly disclose a method for publishing a plurality of objects, comprising the step of:

- sorting the at least one graph in topological order; and
- examining the graph in a topological order.

Cormen et al. teaches a method of performing a topological sort of an acyclic graph, comprising the steps of:

- sorting the at least one graph in topological order (Page 485, fifth and sixth full paragraphs); and
- examining the graph in a topological order (Page 485, fifth and sixth full paragraphs),

for the purpose of indicating precedence among the objects (Page 485, fifth and sixth full paragraphs).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method for publishing a plurality of objects, disclosed in Ferrel et al., to include the steps of:

- sorting the at least one graph in topological order; and
- examining the graph in a topological order,

for the purpose of indicating precedence among the objects, as taught by Cormen et al.

Claims 24 and 50:

As indicated in the above discussion, Ferrel et al. discloses every element of Claim 20.

Ferrel et al. also discloses a method for publishing a plurality of objects, further comprising the step of:

- performing a sort on at least part of the at least one graph (Column 29, Lines 50-51).

Ferrel et al. fails to expressly disclose a method for publishing a plurality of objects, comprising the step of:

- performing a topological sort on at least part of the at least one graph for finding strongly connected components.

Cormen et al. teaches a method of performing a topological sort of an acyclic graph, comprising the step of:

- performing a topological sort on at least part of the at least one graph for finding strongly connected components (Pages 488-493),

for the purpose of converting a directed graph into an acyclic component graph (see Figure 23.9 on Page 489) so as to indicate precedence among the objects that comprise nodes of the graph (Page 485, fifth and sixth full paragraphs).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method for publishing objects, disclosed in Ferrel et al., to include the step of performing a topological sort on at least part of the at least one graph for finding strongly connected components for the purpose of converting a directed graph into an acyclic component graph so as to indicate precedence among the objects that comprise nodes of the graph, as taught by Cormen et al.

Claims 25 and 51:

Ferrel et al. discloses a method for publishing a plurality of objects, further comprising the step of:

- publishing a set of objects of the at least one graph together (as explained in the rejection for Claim 1, the objects are sorted, constructed and then published together).

Ferrel et al. fails to expressly disclose a method for publishing a plurality of objects, comprising the step of:

- publishing a set of objects ***belonging to a same strongly connected component*** together.

Cormen et al. teaches a method of performing a topological sort of an acyclic graph, comprising the step of:

- examining objects in an order defined by topological sorting (Page 485, fifth and sixth full paragraphs); and
- finding at least one strongly connected component in the at least one graph (Pages 488-493),

for the purpose of converting a directed graph into an acyclic component graph (see Figure 23.9 on Page 489) so as to indicate precedence among the objects that comprise nodes of the graph (Page 485, fifth and sixth full paragraphs).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method for publishing objects, disclosed in Ferrel et al., to include the step of:

- publishing a set of objects belonging to a same strongly connected component of the at least one graph together,

for the purpose of converting a directed graph into an acyclic component graph so as to indicate precedence among the objects that comprise nodes of the graph, as taught by Cormen et al.

Claims 26 and 52:

Ferrel et al. discloses a method for publishing a plurality of objects, comprising the steps of:

- examining objects in an order defined by sorting (Column 53, Lines 36-50 – the plurality of objects are “sorted” “to determine the order in which to construct one or more objects” in that that a sorting algorithms can be applied at the parse tree creation step to order the content that is placed on the tree); and
- when an unpublished object is examined, publishing the unpublished object together with all objects (as explained in the rejection for Claim 1, the objects are sorted, constructed and then published together; thus, “when an unpublished object is examined,” it is published together with all objects).

Ferrel et al. fails to expressly disclose a method for publishing a plurality of objects, comprising the step of:

- examining objects in an order defined by the **topological** sort; and
- when an unpublished object is examined, publishing the unpublished object together with all objects **belonging to a same strongly connected component**.

Cormen et al. teaches a method of performing a topological sort of an acyclic graph, comprising the step of:

- examining objects in an order defined by topological sorting (Page 485, fifth and sixth full paragraphs); and
- finding at least one strongly connected component in the at least one graph (Pages 488-493),

for the purpose of converting a directed graph into an acyclic component graph (see Figure 23.9 on Page 489) so as to indicate precedence among the objects that comprise nodes of the graph (Page 485, fifth and sixth full paragraphs).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method for publishing objects, disclosed in Ferrel et al., to include the steps of:

- examining objects in an order defined by topological sort; and
- when an unpublished object is examined, publishing the unpublished object together with all objects belonging to a same strongly connected component,

for the purpose of converting a directed graph into an acyclic component graph so as to indicate precedence among the objects that comprise nodes of the graph, as taught by Cormen et al.

Claim 53:

Ferrel et al. discloses a method for publishing a plurality of objects (Column 1, Lines 8-11), comprising the steps of:

- providing a plurality of objects (Column 4, Line 66 through Column 5, Line 2 – the “components” of the publication are the objects);
- constructing at least one graph (Column 9, Lines 30-31 – the acyclic graph), the at least one graph including nodes representing objects and edges for connecting nodes having relationships (Ferrel et al. expressly discloses an acyclic graph, which *inherently* includes nodes that represent objects and edges for connecting nodes having relationships. These “nodes” and “edges” simply describe an acyclic graph.), at least some of the edges being derived from at least one consistency restraint (similarly, “edges” are inherently derived from a consistency restraint. For example, when a graph is topologically sorted, the “sort” follows the edges and imposes “consistency constraints.”); and
- publishing a set of objects (Column 13, Lines 50-55 – the objects are published to the client).

Ferrel et al. fails to expressly disclose a method for publishing objects, comprising the step of:

- finding at least one strongly connected component in the at least one graph.

Cormen et al. teaches a method of performing a topological sort of an acyclic graph, comprising the step of:

- finding at least one strongly connected component in the at least one graph (Pages 488-493),

for the purpose of converting a directed graph into an acyclic component graph (see Figure 23.9 on Page 489) so as to indicate precedence among the objects that comprise nodes of the graph (Page 485, fifth and sixth full paragraphs).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method for publishing objects, disclosed in Ferrel et al., to include the step of finding at least one strongly connected component in the at least one graph for the purpose of converting a directed graph into an acyclic component graph so as to indicate precedence among the objects that comprise nodes of the graph, as taught by Cormen et al.

Claim 55:

Ferrel et al. fails to expressly disclose a method for publishing a plurality of objects, comprising the step of:

- topologically sorting at least part of the at least one graph.

Cormen et al. teaches a method of performing a topological sort of an acyclic graph, comprising the step of:

- topologically sorting at least part of the at least one graph (Page 485, fifth and sixth full paragraphs),

for the purpose of indicating precedence among the objects (Page 485, fifth and sixth full paragraphs).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method for publishing a plurality of objects, disclosed in Ferrel et al., to include the step of topologically sorting at least part of the at least one graph for the purpose of indicating precedence among the objects, as taught by Cormen et al.

Claim 56:

Ferrel et al. discloses a method for publishing a plurality of objects, comprising the step of:

- examining objects in an order defined by sorting (Column 53, Lines 36-50 – the plurality of objects are “sorted” “to determine the order in which to construct one or more objects” in that that a sorting algorithms can be applied at the parse tree creation step to order the content that is placed on the tree); and
- when an unpublished object is examined, publishing the unpublished object together with all objects (as explained in the rejection for Claim 1, the objects are sorted, constructed and then published together; thus, “when an unpublished object is examined,” it is published together with all objects).

Ferrel et al. fails to expressly disclose a method for publishing a plurality of objects, comprising the step of:

- examining objects in an order defined by ***topological*** sorting; and

- when an unpublished object is examined, publishing the unpublished object together with all objects ***belonging to a same strongly connected component***.

Cormen et al. teaches a method of performing a topological sort of an acyclic graph, comprising the step of:

- examining objects in an order defined by topological sorting (Page 485, fifth and sixth full paragraphs); and
- finding at least one strongly connected component in the at least one graph (Pages 488-493),

for the purpose of converting a directed graph into an acyclic component graph (see Figure 23.9 on Page 489) so as to indicate precedence among the objects that comprise nodes of the graph (Page 485, fifth and sixth full paragraphs).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method for publishing objects, disclosed in Ferrel et al., to include the steps of:

- examining objects in an order defined by topological sorting; and
 - when an unpublished object is examined, publishing the unpublished object together with all objects belonging to a same strongly connected component,
- for the purpose of converting a directed graph into an acyclic component graph so as to indicate precedence among the objects that comprise nodes of the graph, as taught by Cormen et al.

Claim 57:

Ferrel et al. discloses a method for publishing a plurality of objects, wherein one of the at least one consistency constraint includes delaying publication of a first object before a second object which is referenced by the first object is published (Column 39, Line 55 through Column 40, Line 5 – the dynamic story control and the link manager interact to create a web page, the “second object,” and make it available before the referencing web page, the “first object” that contains the hyperlink to the “second object,” is published).

Claim 58:

Ferrel et al. discloses a method for publishing a plurality of objects, wherein the first and second objects include Web pages and at least one edge between the objects corresponds to at least one hypertext link (Column 39, Line 55 through Column 40, Line 5 – the dynamic story control and the link manager interact to create a web page, the “second object,” and make it available before the referencing web page, the “first object” that contains the hyperlink to the “second object,” is published).

Claim 59:

Ferrel et al. discloses a method for publishing a plurality of objects, wherein an edge exists from a first object to a second object in at least one of the at least one graphs if the second object has a reference to the first object (Ferrel et al. expressly discloses an acyclic graph, as indicated in the above discussion. An acyclic graph

inherently includes an edge from a first object to a second object if the second object has a reference to the first object. This limitation simply describes an “acyclic graph.”)

Claim 60:

Ferrel et al. discloses a method for publishing a plurality of objects, wherein the at least one of the consistency constraints includes publishing two compound objects together if the two compound objects are both constructed from at least one common changed fragment (Column 28, Line 49-55 – the objects making up the web pages are edited and the pages containing common updated “fragments” are published together).

Response to Arguments

Applicant's arguments with respect to all claims have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Doug Hutton whose telephone number is (703) 305-1701. The examiner can normally be reached on Monday-Friday from 8:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon, can be reached at (703) 308-5186. The fax phone number for the organization where this application or proceeding is assigned is (703) 746-7239.

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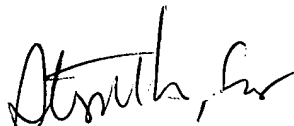
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

WDH

September 16, 2003



**HEATHER HERNDON
SUPERVISORY PATENT EXAMINER
TECH CENTER 2100**